

CLAIMS

What is claimed is:

1. A hand-held system for use with an object bearing a digitally watermarked image, comprising:

an image forming subsystem for generating digital data representing the digitally watermarked image;

a data processor for processing the digital data for extracting information encoded within the digitally watermarked image; and

an adapter for coupling the extracted information through a communication link to an external data processor.

2. A hand-held system as in claim 1, wherein the communication link is comprised of a wireless link.

3. A hand-held system as in claim 1, wherein the communication link is comprised of a wired link.

4. A hand-held system as in claim 1, wherein the external data processor receives the extracted information through a data communications network.

5. A hand-held system as in claim 1, wherein the external data processor receives the extracted information through the Internet.

6. A hand-held system as in claim 1, wherein the communication link is comprised of a wireless link to an interface to the Internet.

7. A hand-held system as in claim 1, wherein the data processor processes the digital data to compensate for distortions in the digitally watermarked image caused by the orientation of the

hand-held device with respect to the digitally watermarked image.

8. A hand-held system as in claim 1, wherein the digitally watermarked image is applied to a substrate containing at least one taggant for encoding additional information used by the data processor for extracting the information encoded within the digitally watermarked image.

9. A method for use with an object bearing a digitally watermarked image, comprising:

generating digital data representing the digitally watermarked image;

processing the digital data for extracting information encoded within the digitally watermarked image; and

coupling the extracted information through a communication link to a data processor, receiving the extracted information at the data processor and operating the data processor to take some action based on the received information.

10. A method as in claim 9, wherein the communication link is comprised of one of a wireless link or a wired link.

11. A method as in claim 9, wherein the data processor receives the extracted information through a data communications network.

12. A method as in claim 9, wherein the data processor receives the extracted information through the Internet.

13. A method as in claim 9, wherein the step of coupling uses one of a wired link or a wireless link to interface to the Internet.

14. A method as in claim 9, wherein the data processor processes the digital data to compensate for distortions in the digitally watermarked image caused by an orientation of a hand-held imaging device with respect to the digitally watermarked image.

15. A method as in claim 9, wherein the extracted information is comprised of a data communications network address through which the data processor can be reached.

16. A method as in claim 9, wherein the action is comprised of using the extracted information to access a database.

17. A method as in claim 9, wherein the steps of generating and processing occur within a hand-held device.

18. A method as in claim 9, wherein the digitally watermarked image is applied to a substrate containing at least one taggant for specifying additional information, and where the step of processing uses the additional information in conjunction with the information encoded within the digitally watermarked image.

19. A method for use with an object bearing a digitally watermarked image, comprising:

operating a hand-held device to generate digital data representing the digitally watermarked image and to process the digital data to extract information encoded within the digitally watermarked image;

transmitting the extracted information through at least one of a wired or a wireless communication link towards a data processor located external to the hand-held device;

receiving the extracted information at the data processor; and

operating the data processor to take some action based on the received information.

20. A method as in claim 19, wherein the data processor receives the extracted information through a data communications network.

21. A method as in claim 19, wherein the data processor receives the extracted information through the Internet.

22. A method as in claim 19, wherein the extracted information is comprised of a data communications network address through which the data processor can be reached.

23. A method as in claim 19, wherein the action is comprised of using the extracted information to access a database.

24. A method as in claim 19, wherein the action is comprised of using the extracted information to verify an identity of the object.

25. A method as in claim 19, wherein the action is comprised of using the extracted information to verify an identity of a person who is associated with the object.

26. A method as in claim 19, wherein the action is comprised of using the extracted information to obtain information that is associated with a person who is associated with the object.

27. A method as in claim 19, wherein the action is comprised of using the extracted information to verify an authenticity of the object.

28. A method as in claim 19, wherein the action comprises transmitting information from the data processor for reception by the hand-held device.

29. A method as in claim 19, wherein the action comprises transmitting information from the data processor for display by the hand-held device.

30. A method as in claim 19, wherein the digitally watermarked image is applied to a substrate containing at least one taggant for expressing additional information, and where the step of operating the hand-held reader uses the additional information to at least one of extract or supplement the information encoded within the digitally watermarked image.